

## CLAIMS

What is claimed is:

1. A nonaqueous metal container coating composition comprising:
  - 5 I) at least one coating composition component selected from the group consisting of a binder, a pigment, and a solvent; and
  - II) at least one base-catalyzed reaction product comprising the following reactants:
    - A) at least one compound of formula I
$$R^1(X)_3 \quad (I)$$
wherein each X group is a halogen atom or one X group is a halogen atom and two X groups represent an epoxy oxygen atom, which is attached to two adjacent carbon atoms in the  $R^1$  group to form an epoxy group, and  $R^1$  is an alkanetriyl group containing from 3 to 10 carbon atoms; and
    - 15 B) at least one compound having the formula II
$$R^2X(AO)_nY \quad (II)$$
wherein  $R^2$  is a substituted or unsubstituted, saturated or unsaturated, organic group having from 1 to 36 carbon atoms; X is  $-O-$ ,  $-S-$ , or  $-NR^3-$  where  $R^3$  is hydrogen or a  $C_1-C_{18}$  alkyl group; each AO group is independently an ethyleneoxy, 1,2-propyleneoxy, or 1,2-butyleneoxy group, n is a number from 0 to 200; and Y is hydrogen, or Y can be a mercapto group or an amino group or a  $C_1-C_6$  alkylamino group in place of a terminal  $-OH$  group, provided that when Y is mercapto or an amino group, n is at least 1;

20 wherein the mole ratio of the linking compound A) to B) is from 0.1:1 to 5:1.

2. A metalworking lubricant composition comprising:

- A) at least one lubricating oil; and
- B) at least one base-catalyzed branched reaction product comprising the following reactants:
  - a) at least one compound of formula I

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wherein each X group is a halogen atom or one X group is a halogen atom and two X groups represent an epoxy oxygen atom, which is attached to two adjacent carbon atoms in the  $R^1$  group to form an epoxy group, and  $R^1$  is an alkanetriyl group containing from 3 to 10 carbon atoms; and

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b) at least one compound having the formula II



wherein R<sup>2</sup> is a substituted or unsubstituted, saturated or unsaturated, organic group having from 1 to 36 carbon atoms; X is -O-, -S-, or -NR<sup>3</sup>- where R<sup>3</sup> is hydrocarbon or a C<sub>1</sub>-C<sub>18</sub> alkyl group; each AO group is independently an ethyleneoxy, 1,2-propyleneoxy, or 1,2-butyleneoxy group, n is a number from 0 to 200; and Y is hydrogen, or Y can be a mercapto group or an amino group or a C<sub>1</sub>-C<sub>6</sub> alkylamino group in place of a terminal -OH group, provided that when Y is mercapto or an amino group or a C<sub>1</sub>-C<sub>6</sub> alkylamino group, n is at least 1;

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wherein the mole ratio of the linking compound a) to b) is from 0.1:1 to 5:1.

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3. An aqueous electroplating composition comprising :

A) at least one metal or metalloid; and

B) at least one base-catalyzed reaction product comprising the following reactants:

a) at least one compound of formula I

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wherein each X group is a halogen atom or one X group is a halogen atom and two X groups represent an epoxy oxygen atom, which is attached to two adjacent carbon atoms in the R<sup>1</sup> group to form an epoxy group, and R<sup>1</sup> is an alkanetriyl group containing from 3 to 10 carbon atoms; and

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b) at least one compound having the formula II



wherein R<sup>2</sup> is a substituted or unsubstituted, saturated or unsaturated, organic group having from 1 to 36 carbon atoms; X is -O-, -S-, or -NR<sup>3</sup>- where R<sup>3</sup> is hydrogen or a C<sub>1</sub>-C<sub>18</sub> alkyl group; each AO group is independently an ethyleneoxy, 1,2-propyleneoxy, or 1,2-butylenoxy group, n is a number from 0 to 200; and Y is hydrogen, or Y can be a mercapto group or an amino group or a C<sub>1</sub>-C<sub>6</sub> alkylamino group in place of a terminal -OH group, provided that when Y is mercapto or an amino group, or a C<sub>1</sub>-C<sub>6</sub> alkylamino group, n is at least 1;

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wherein the mole ratio of component a) to b) is from 0.1:1 to 5:1.